

by Oren Arnold

"Come ye yourselves apart into a desert place, and rest a while." Mark 6:31

We pretend not to notice it in late May and June. In July we set our lips firmly in a straight line and dare it to do its worst. In August it does its worst. So by August 15 or so we borrow something or hock something or if we have it deposited we withdraw something, and head for the highlands or the surf. There's no shame attached to this; nature is supposed to triumph over man now and then, just to remind us Who is boss, and heat is one of its weapons. Anyway it's two-thirds over, so take heart.

Significant sign on a pretty little desert village church:
You think THIS is hot?

August can't frighten me by turning the heat on. I've been long married to a spirited woman.

"Lord knows I've tried to make this a better community," says my desert-dwelling pal "Foxtail" Johnson. "I've voted against every candidate that got elected around here since I was 16 years old."

Lots of talk now about toll roads across our deserts. I'm ag'in 'em, unless. Unless the franchises make specific limitations on the owners, and demand specific protections for us motorists. The owners must not be allowed to control the roadside eateries and filling stations, or prices will shoot sky high—that's the situation now in many areas, notably Oklahoma and Illinois. And "maintenance" must be spelled out,

so that the toll takers don't let a road go to chuck holes. And the government must still be forced to maintain nearby feeder roads. Think twice before you give toll people a blanket go-ahead.

One of the greatest boons to all desert dwellers and travelers is the simple soda pop. Actually pop is just pap; non-fattening, harmless. But, cold, it can be like the adv. says—delicious and refreshing. Most of us don't need or even want a Rolls Royce, a mountain villa, a seaside estate, or a five-figure bank account. But we are humbly grateful for the many little blessings of life. Pop is one of them.

There is a magic moment in every summer day. It is just at nightfall, when the flies have quit and the mosquitoes have not yet gone to work.

Ken Palmer, who once had no money and bad health, has made himself wealthy and strong by accepting the desert's open-armed invitation. He did it not by exploitation, not by sharp chicanery, but by dedicated Christian appreciation of the rocks and hills, the cacti and animals, the azure skies and the sunsets of crimson, emerald and gold. He lived on a parcel of "cheap" land 30 miles from the nearest village. But his enthusiasm was so contagious that dozens then hundreds of folk yearned to become his neighbors. The acreage all around went sky high, the area is booming. Ken and his beloved Betty have brought a cultural level to a vast area that never knew any such before. Somehow I think that's Americanism at its finest.

Had a little visit with Frank Kush, football coach at our local "desert" university. Learned that he plans to use a three-platoon system this Fall—one for defense, one for offense, one to attend classes.

"Why do you keep bragging about the Southwestern desert?" a good reader writes me. "What's wrong with my home town, New York?"

Not a cotton-pickin' thing, sir. I'd live there if they gave me the place.

O happy day! Friend Mort Kimsey, who is mayor of a desert town, saw a litterbug dump a sack of garbage on his cactus-gemmed acreage. He gathered it up, traced the car license, and returned the garbage to the litterbug's front yard!

My interferiority complex frequently causes an embarrassing boomerang. Came onto an old, wrinkled, ragged Indian trying to dig a hole in rocky desert soil. So, grinning stupidly, I needled him about seeking gold in such an unlikely spot. "No gold," grunted he.

"Then what?" demanded I, the superior city sophisticate. "Oil?"

He straightened up, wiped sweat—or tears—off his face, and dismissed me with two more words—"Bury wife."

Our postal service isn't perfect, I suppose. But it did deliver a letter addressed to a man at "Elmer Rog, Arizona." They sent it to El Mirage.

One of my desert-country friends has come up with an idea so revolutionary it could wreck our economic system. It's a "Cash Card," officially printed and mounted in protective plastic. It reads: "The bearer of this card is entitled to make any purchase for cash. It must be honored anywhere when accompanied with either silver or currency. It requires no identification, no billing procedures, no limit as to amount."

It'll never gain acceptance by us vacationers.

"What makes these Western plains so flat?" a dude asked a cowboy.

"I reckon," drawled the old whanghide, "it's because the sun sets on 'em every night."

Greatest blessing about August days is—they have August nights. Stew all day; fret and fume, sweat and drip and nag and gripe. But come 10 p.m. lie back on a pallet or cot and feast your eyes on the velvet sky. Count every gem—knowing that for each one up there you have somewhere a blessing a God's grace you may not actually deserve. Then peace, my friend; peace.

THE DESERT IN AUGUST:

On Schedule. On May 15, 1963, 80 dignitaries will take their seats in an 80-passenger tram car (one of two now under construction in Switzerland), and in a matter of minutes be whisked to the flank of Mt. San Jacinto, 8000 feet above the desert floor. At their feet, appearing as a child's toytown, will be the city of Palm Springs. Eastward will stretch the dark green squares of Indio's date orchards, the blue of Salton Sea, and the brown expanse of Imperial Valley. All this provided, of course, the weather on May 15, 1963, is clear, and the workmen



who have already spent a year building the Palm Springs Aerial Tramway maintain their "on schedule" pace.

A total of 148,000 feet of locked coil cable, wire rope and strand is being produced in Trenton, New Jersey, for the double track and double hauling cables. Fabrication of approximately 263 tons of structural steel for the five towers has already begun in Los Angeles. Total cost of what will be the world's largest passenger - carrying tram: \$7,700,000. The photo above shows the tramway route up Chino Canyon (the solid line below Valley Station represents a fourlane road currently being built.

Both terminal stations will have restaurant, gift shop and lobby facilities; the three parking areas at Valley Station will accommodate 1000 cars; each tramway car will be capable of transporting 400 persons per hour in either direction; an estimated half-million persons will make the ride the first year.

A half-million people suddenly and spectacularly deposited in the heart of a mountain wilderness! Let us hope that more good than harm comes of this considerable adventure.

A Friend Is Gone. Victor Clyde Forsythe, desert artist, died in mid-May. After a successful career as cartoonist in the East ("Joe's Car", "Dynamite Don", "Way Out West") Forsythe established himself as a serious painter of Western scenes. His most noteworthy contribution to DESERT was the "Gold Strike" series which appeared on DESERT's covers in the summer of 1960.

Overland to Rainbow. Before it burned to the ground some years ago, Rainbow Lodge was the outfitting point for horseback and hiking trips to Rainbow Bridge. Myles Headrick has established a small trading post

continued on next page



Volume 25

Number 8

CONTENTS FOR AUGUST, 1962

This Month's Cover-

The Claret Cup Cactus belongs to the Southwest. The species is found throughout Arizona and New Mexico, and into West Texas, Colorado, Utah and California. Several varieties occur at elevations between 4000 and 8000 feet. Natt N. Dodge of Santa Fe photographed the blossom trio for our August cover. For more on cacti, see page 7.

Other Deserts-

10 Exploring Australia's Victoria Desert

V. L. SERVENTY

Special Report—

14 Is Small Mining Dead?

CHARLES H. DUNNING

14 The Last Gold Mill

WARREN and BARBARA TRANSUE

Observations, Discoveries-

2 Desert Detours

OREN ARNOLD

The Desert in August 20 At a Navajo Waterhole

SAM ROSENTHAL, JR.

Lost Jesuit Treasure: Fact or Fancy? CHARLES W. POLZER, S.J.

VIOLETTE NEWTON

38 Poem of the Month

6 Garden Hints for August

An Easy Way to Graft Cactus

HIRAM L. PARENT

12 Smallest of the Desert "Hawks"

EDMUND C. JAEGER

Yesterday's Desert-

Nature's Wonders-

28 Ghost Mountain Diary

MARSHAL SOUTH

Other Features—

8 New Ideas for Desert Living

DAN LEE

Letters from our Readers

New and Interesting Southwest Books

CHARLES E. SHELTON

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CHARLES E. SHELTON

EUGENE L. CONROTTO

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THE DESERT IN AUGUST (continued from preceding page)

at the site and hopes eventually to rebuild the lodge. At present however, this is the situation there: no facilities for serving meals; campers welcome; cabins—not modern—available at \$5 per night; with ample notice Headrick can procure Navajo guides and horses (\$15 a day for guide; \$7 for saddle horses; food and camping equipment not provided). Headrick's address: Rainbow Trading Post, Tonalea, Ariz.

The Late Law After months and years of feet dragging, the Riverside, Calif., County Board of Supervisors finally passed an ordinance making it unlawful for subdividers and farmers to disturb the top-soil in areas susceptible to blow-sand conditions. The new law requires that protective measures (fencing, plantings, sprinkling) be taken to heal land scars and hold the soil in place.

Down the River. Art Greene, veteran riverrunner featured in last month's DESERT, recently had two customers on one of his Glen Camyon "farewell" voyages who had more on their minds than mentally saying goodbye to the scenery that will be inundated by the lake-to-be behind Glen Canyon Dam. Making the 150-mile trip from Hite, Utah, to Page, Arizona, with Greene, were Governors George D. Clyde of Utah and Paul Fannin of Arizona. Their states will witness a revolution in Southwest recreation when Lake Powell becomes a reality next year.

Vandals Discover Amboy. Word comes to us that the outdoor-wreckers have made their way into Amboy Crater, the classic black cone skirted by Highway 66 east of Barstow. What the vandals have done is scratch and paint their names and pseudonames (cuss words) on the volcanic rocks. What are the prospects for protecting the crater? At present, it doesn't look too good. Writes Jay Homan, chief of the San Bernardino County Planning Commission: "Many years ago... the Amboy Crater was recommended for inclusion in the State Park System. I doubt that it was ever seriously considered because of its comparatively isolated and barren situation amid extensive rough lava flows. We in the Planning Department, however, look upon it as an important and impressive landmark . . . and it might well be identified by an appropriate monument along the Highway." Adds Horace "Doc" Parker, conservation leader: "The only way we can protect desert lands of scenic, historic, recreational or scientific value is to have them included in either a State or National park or monument. However, for the foreseeable future, the Amboy Crater will probably have to remain at the mercy of the desert vandals. A monument will not protect it.'

Stabilizing Nature. The National Park Service is spending \$25,000 in an attempt to pin a large natural arch to the cliff above Spruce Tree Ruin in Mesa Verde National Park. The 3000-ton sandstone slab has been gradually pulling away from the cliff and now threatens to fall.

Not Enough. The past winter's rains were "bountiful and welcome," but it takes more than one rainy winter to end Southern California's water problem. This is the word from Preston Hotchkis, general chairman of the Southland Water Committee. "Water problems in Southern California will not be resolved until the State Water Project is completed and Delta-Feather River water is flowing from the taps in our homes," said Hotchkis. "That is still 10 years away—and that remains the deadline in our need." Along with last winter's above-average rainfall, only three other wet seasons in the past 18 years produced above-average precipitation, and one year had only an inch above. As a result, the cumulative rainfall deficit in Southern California now totals approximately 52 inches—or about four years of full normal rainfall.

Trail Scooter Policy. The Regional Forester for the Pacific Northwest Region (Oregon and Washington) declared recently that National Forest trails will be open to two-wheel motor vehicles except "in

wilderness-type and similar areas where motor vehicles already are excluded, and in areas where their use will damage resources, endanger the public, or seriously interfere with other important public uses or values." Forest supervisors will give public notice and post restrictions for each National Forest trail closure. DESERT applauds this move towards the clarification of the trail scooter's status in at least one segment of the public lands.

Wrong Direction. The nation's largest firm handling radioactive waste material will no longer dump its hot cargo in the Pacific Ocean off the Farallone Islands. Instead, it will bury the waste material in the Amargosa Desert near Beatty, Nevada.

August Calendar: If you have ever tried to inspire, cajole, wheedle or force a burro into action—you may picture the scene to be enacted at the start of the 9th Annual National Burro Derby on August 2-5. This will mark the opening of a unique four-day celebration beginning in the desert sands at Apple Valley, Calif., and having its climax among mountain pines and lakes 44 miles away and 6800 feet high at Big Bear. You can join in festive activities at the beginning of the derby and follow its tortuous and comical progress up the north-side of the great San Bernardino Mountains, or you can come up to the cool mountains from the other side, enjoy yourself in a variety of ways, and be on hand for the grand finale of the burro event.

Burros are rounded up mainly from Nevada and Arizona and brought to Apple Valley. Volunteer wranglers, backed by sponsors, attempt to make the trek, leading the burro by rope halter only. Of the 70 or 80 who usually start out, many are left by the wayside. On hand is a humane officer to protect the burros; but the wranglers need protection more. One year a burro knocked down his wrangler, stomped him, then bit him several times before rescuers got the man to a hospital. One race was particularly rough on the men. Two went to the hospital, many were kicked, knocked down, bitten or dragged, and many burros escaped.

Best time for the 44-mile derby is just under 10 hours. In 1956, Dr. William R. Thomas, Apple Valley surgeon who last June won the Republican nomination for Congress, made it in 13:25.28. Other wranglers have been a California Highway Patrolman, an animaltrainer, former college star runner, a woman veteran of the Marine Corps, 14 and 16 year old boys, and several girls.

While thousands wait for the burros, continuous festivities throughout the Big Bear Lake area will be in swing Friday and Saturday, with Sunday reserved for the gigantic parade, with awards in the many contests being given that afternoon. Three paved routes lead up the south-side of the San Bernardino Mountains: Highway 18 up Waterman Canyon north of San Bernardino ("Rim of the World" route); Highway 30 up City Canyon north from Highland; and the new paved Foute 38 via Barton Flats northeast from Redlands. Those coming from the Mojave Desert side and all those who want to follow will take Highway 18 at Lucerne Valley to climb to Big Bear. Some combination of these routes makes an interesting circle tour.

Besides the natural scenic attractions, there are unusual features such as Santa's Village and Enchanted Forest. Storybook characters witches, gnomes, princesses—come alive in these year-round "fairylends." It sound fantastic to suggest heading desertward in August and to see Santa Claus! But the San Bernardinos rise 11,500 feet above the desert, creating a summer resort as well as a winter playground. Besides many resort facilities there are numerous public camps at 5000 to 7500 feet elevation.

Also on the August Calendar are these Southwest events: Aug. 4: Smoki Ceremonials, Prescott, Ariz. Aug. 9-12: Indian Ceremonial, Callup, New Mexico. Aug. 15-19: Farmers' Fair, Hemet, Calif. Aug. 16-18: Cache County Fair and Rodeo, Logan, Utah. Aug. 18-19, 25-26: Fony Express Days, Ely, Nev. Aug. 19: Annual Sheriff's Posse Rodeo, Sedona, Ariz. August 24-26: Nevada Fair of Industry, Ely. Aug. 30-Sept. 3: Antelope Valley Fair and Alfalfa Festival, Lancaster, Calif. In late August the Hopis dance for rain (this year at Hotevilla). Write to the Winslow Chamber of Commerce for the date, which is set a few weeks before the sacred rite.

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Desert Garden Guide

- THINGS TO DO IN AUGUST



Annuals for winter flowering (indoors or greenhouse) should be sown now. Cinerarias will bloom in March if seeds are planted in early August. Bulbs for fall planting should be ordered now.

LOW DESERT: Mulch and light feeding where necessary, is the routine for August. Pull out annuals that have finished

This is the time to take a good look at your flowers. Are you disappointed? A variety of annuals can weather the heat when the soil is properly prepared before planting. Most of our Southwest Desert soil can use more humus or compost worked deeply at the start.

To fill that gap in the garden, try portulaca, marigolds, four-o'clocks, cosmos, zinnias, petunias, verbenas. Sweet peas can be planted now if protected from the sun. Madonna lilies should be planted this

Long slow watering will be most bene-

HIGH DESERT: Thorough watering and mulching (if not done previously) are necessary for August's annuals.

NEVADA, UTAH and NORTHERN ARIZONA: Thorough watering.



LOW DESERT: Roses will need lots of water this month. Perennial seeds may be planted at the end of the month in shaded areas. Mulch and light feeding, spraying or dusting for detrimental insects and disease, is the main chore. A good all-purpose insecticide may be used rather than several different kinds.

DESERT: Thorough watering and mulching; sow seeds at end of the

NEVADA, UTAH AND NORTHERN ARIZONA: Fertilize mums regularly until buds show color. Roses should be fed. Divide iris and shasta daisies. Plant fall and winter bulbs as well as perennial seeds.

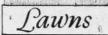


Fertilize old trees in mid-August; three pounds of 10-6-4 or 10-5-5 per trunk-inch-

LOW DESERT: Mulch shrubs and new trees if you have not done so-it conserves water and keeps the roots cool. In some areas, trees or shrubs grown in containers can be planted, but make sure they do not lack for water, especially bougainvillea. Long, slow watering leaches the alkali from

HIGH DESERT: Mulch and water thoroughly. Prune out unruly growth.

NEVADA, UTAH AND NORTHERN ARIZONA: Prune and water as necessary. Don't over-fertilize evergreen shrubs in August. New shoots need to be hardened before killing frosts arrive.

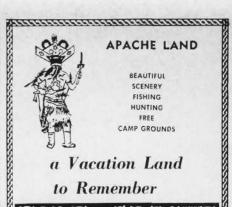


Water lawns deeply as needed. Mowing frequently to remove a small portion of top helps build a strong root system. If elip-pings are left on lawn, some potash will be returned to the soil, though it may not look as neat as a raked lawn. Shady or damp areas should be raked.

NEVADA, UTAH AND NORTHERN ARIZONA: Continue light feeding and watering. New lawn sites should be prepared now for September planting.



Manzanita should not be watered in summer months. Seeds of creosotebush can be gathered in late summer; kept until next summer when they can be planted about one-inch deep. Soak thoroughly when planting, again when plants appear. Bladder-pod bush needs one or two good soakings during the hot weather only.



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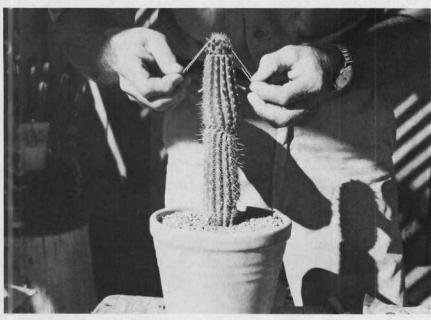
Desert Magazine Palm Desert, Calif.

Southwest tourism entrepreneurs (motelmen, guides, camp operators, etc.), not already contacted by DESERT, who would like their literature distributed to readers and visitors to DESERT's pueblo, are invited to send samples of their brochures to the above address.

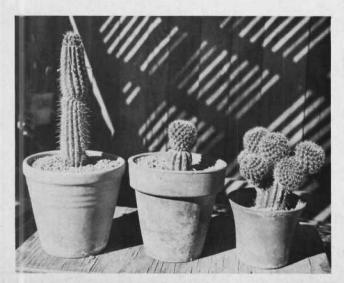
Cactus Grafting tools: matchsticks and rubber bands . . .

I. A piece of the small plant at right, Mammillaria Zeilmanniana, is to be grafted onto Trichocereus Spachianus.

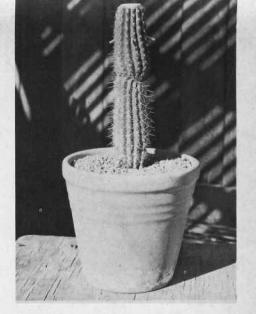




3. Section of M. Zeilmanniana is placed on the base stock. Rubber bands are laid over the top and hooked onto the matchsticks.



5. Tall plant is today's work; middle one was done three months ago; plant graft at right is six months old.



2. Top is removed squarely with knife, and four matchsticks are set at an angle.



4. Closeup of the graft Bands must remain until there is evidence complete healing.

Photographs by Hiram L. Parent

NEW IDEAS for DESERT LIVING

By DAN LEE

King-Size Barbecue-

Barbecue braziers all run pretty much alike, but Mr. Smokestack, a departure from conventional design, has many interesting features. It resembles a water heater chopped off short, but in actuality is a miniature smokehouse and barbecue oven rolled into one compact unit: 40-inches high, 16-inches in diameter; made of coldrolled steel. I like it, even though I have not tested it to capacity: Mr. Smokestack can smoke and barbecue 40 pounds of meat at one time. It barbecues without basting, without turning—without any attention, once the fire is going. The price is \$39.95. Mr. Smokestack is available from Dept. D, P. O. Box 22212, Houston 27,

Liquid Meal in a Can-

If 40 pounds of barbecue meat is too much to put in your pack on that hike to the top of Mt. San Gorgonio, consider the meal in a can. Most of the survival foods and emergency rations that hit the market are as dry as a popcorn sandwich. Not so with *Nutrament*, a 400-calorie meal in liquid form. The user gets both food and drink in one can. (A can of Nutrament equals the food value of a glass of orange juice, poached egg, strip of bacon, sweet roll and coffee.) It come in vanilla and chocolate flavor, and is quite tasty, resembling that of a rich malted milk.

I'd say it would make an excellent desert ration on those hot days when food just doesn't seem inviting. It can be stored without refrigeration for long periods. No cooking is required—only a sharp object to puncture the can. Sorry—the cost of this new product was not announced. Nutrament will be handled by most stores that sell Metrecal, the companion product.

Butane Camp Light-

Anyone who camps in the desert needs light at night, and there's nothing like a lamp that burns for hours and even days without pumping, refilling, or battery charging. A new unit, *LP Camplite*, stands only 10 inches high, and is fitted with both

wall-bracket and ground-stake. It can be used in conjunction with an LP (butane-propane gas) container, via a flexible hose. One 20-pound LP gas cylinder will burn the lamp 175 hours! The price was not announced, but it will probably be competitive with other camplights. The long-burn feature, not requiring pumping or refueling, is a big advantage. From: Dept. D, Camplite, Humphrey Products, Box 2008, Kalamazoo, Mich.

Tent Trailer Canopy-

Warm weather desert camping has its problems, and foremost among them is the matter of proper ventilation. If air can circulate over a shaded area, cooling takes place much faster. A new 14 x 18 - foot heavy-duty canopy made especially for use as additional roofing over tent trailers is available from Heilite Trailers, Inc.

This highly practical item is made for use with the Heilite Tent Trailer. Used in hot weather, the canopy provides a welcomed roof over the campsite, thus allowing cooling air to keep things more comfortable during the heat of the day. Telescopic tent poles and guy ropes with stakes are included. Called the Cover-All Canopy it can also be used as a windbreak, leanto shelter and ground cover. Poles are 7 to 8 feet high. No price announced. Contact: Dept. D, Heilite Trailers, Inc., P. O. Box 480, Lodi, Calif.

New Camper Jacks—

It's been quite a while since anyone has come up with a new idea in truck camper jacks. Travel Queen Coach has a new jack which fits into three built-in holes in the camper. The builder claims that a ten-year-old boy can load or unload a big camper with a set of these new jacks. They look sturdy enough, but they haven't been around long enough for anyone to peg their life expectancy. There is certainly room for plenty of improvement in the camper jack field. Perhaps these new models from Travel Queen will solve some problems. Contact Dept. D, Travel Queen Coaches, P. O. Box 816, Corona, Calif.



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LETTERS FROM OUR READERS

Hurrah for the Fourth . .

To the Editor: Congratulations to writer Peggy Trego and to you for your patriotic story on the way the Fourth of July used to be celebrated in the Southwest (July DESERT). Now, more than ever, America needs this kind of reminder.

> W. A. BROOKS Whittier, Calif.

Chost Island . . .

To the Editor: After reading the July story on Salton Sea's Ghost Island, I am convinced that I must get out to California next winter to see this inland body of water.

FRED DAWSON

Trail Scooters, Continued . . .

To the Editor: I have written to Erle Stanley Gardner stating briefly (3 pages) my opposition to his selfish and ridiculous defense of trail scooters (May DESERT).

If these people feel they cannot go any place without wheels, I think they should stay on roads which were designed for vehicular traffic and stay off trails which were built for foot travel only. Even more tragic is their utter disregard for the countryside, as shown by numerous scars in every area they have penetrated.

Can you honestly say that you know even one trail scooter operator who is "courteous on the trail" as defined in your May issue?

DOUGLAS A. EMERSON Ventura, Calif.

To the Editor: "The greatest good for the greatest number of people" is a concept that doesn't make sense. There is little point in installing facilities in outdoor areas when by doing so you remove the chief charm of that place—its solitude, quiet, untouched wilderness, or whatever.

By so doing, those who appreciate such qualities lose them; those who do not, gain only a few more square miles in which to congregate and picnic. In this respect, the Grand Canyon or Yosemite are not much different than the extensive city park sys-tem of Cleveland, Ohio.

When we speak of doing good for numbers of people, let us remember that people have different ideas of what is good. You can't settle on a standard good by majority vote. If we have parks with different degrees of accessibility, as we now have, then people of different tastes can select the areas that appeal to them.

> RALPH HAMILTON Placerville, Calif.

To the Editor: Your May issue was deplorable. For a temporary advertising in-come you have become the desert's greatest enemy.

> C. H. PEARCE Lucerne Valley, Calif.

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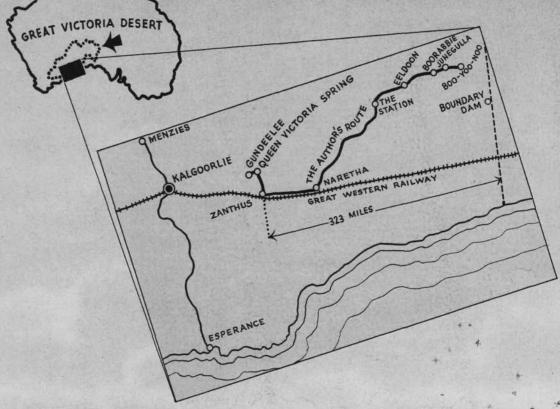
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Into-the Unknown



by V.L.SERVENTY

The author is one of Australia's most eminent biologists. DESERT is grateful
to PACIFIC DISCOVERY, published bimonthly by the California Academy of Sciences,
for permission to reprint Serventy's story
and photos of his Great Victoria
Desert exploration.

THE GREAT VICTORIA is one of Australia's most famous deserts. Lying in Western Australia, it is a desert hemmed in by deserts. To the west is the arid country around Kalgoorlie; to the north lies the Great Sandy Desert; to the south the Nullarbor Plain; and to the east the stony desert of the gibber plains.

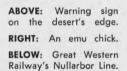
It was this almost unknown land we visited. Blanks on a map have a fascination, and the Great Victoria Desert has remained almost unknown since the explorer Ernest Giles first discovered it in 1875. From Boundary Dam on the South Australian border Giles traveled 323 waterless miles until, near disaster, he stumbled across Queen Victoria Spring. This is what he called it:

". . . The most singularly placed water I have ever seen, lying in a small hollow in the center of a little grassy flat, and surrounded by clumps of the funereal pines, 'in a desert inaccessible, under the shade of melancholy boughs.' "Giles' journal describes the situation of the "no doubt permanent" water in detail, giving thanks "for the discovery of this only and lonely watered spot, after traversing such a desert."

On the western edge of the Great Victoria Desert a mission has been established at Cundeelee. The superintendent of this mission, Bob Stewart, has made several "mercy expeditions" to the east to meet the desert aborigines. He offered me the opportunity to travel with him on his most recent expedition. Quickly I organized a small scientific party. With my brother Dr. D. L. Serventy, Dr. A. R. Main, and the naturalist. W. H. Butler, we made our rendezyous at Cundeelee. With us as guides went Ben and Laurie, two aborigines who a few years ago lived in the desert. In case of trouble it was their job to get us safely back to civilization. Only the expert can find food and water in the desert. Laurie and Ben had learned that skill by the sufferings of thousands of years of

Continued on page 31









SPARROW HAWK

Sparrow Hawk is a most unfortunate common name. The friendly, charmingly - colored bird that bears that name is neither hawk nor eager killer of sparrows. The Sparrow Hawk is a falcon, and, when possible, feeds largely on grasshoppers and other small creatures, including rodents. Only rarely, when driven by great hunger, does it prey upon small birds.

A better name would be Grasshopper Falcon, and I suggest that this name be more widely used. only 9 to 12 inches, it is the smallest of our native birds of prey. (The sparrow part of its name alludes to its "sparrow-size" body). In flight, the Sparrow Hawk seems much larger than it is, this optical deception resulting from the bird's remarkably great wing spread—nearly two feet wide in some cases.

Falco sparverius is for the most part a bird of the lower altitude open fields, although occasionally we see it in open glades among the forest trees. The desert Sparrow Hawk subspecies, Falco sparverius phalaena ("phalaena" in Latin means "moth"), lighter in color and perhaps a bit larger than its Eastern representative, is a familiar inhabitant of the wide-spaces of the Far West, especially of the deserts of the Southwest and Mexico, as far south as Most common of the smaller North American birds of prey, the Sparrow Hawk often occurs in considerable numbers, particularly in autumn just after the nesting season. \(\subseteq \text{Next time you travel over long stretches of desert road bordered} \) (as in parts of Arizona) by fence posts and wire, try counting the number of Grasshopper Falcons sitting about. I have counted as many as 8 to 10 in the space of a few miles. Often these birds are quite "tame" and allow close approach before flying. This often leads to their becoming the victims of hunters who don't know-or don't care-about this bird's beneficial value as an insect-destroyer. Dery often we see a Sparrow Hawk sitting atop a telephone pole, fence post, agave or vucca flowering stalk, scanning the ground beneath with sharp eyes. After locating the large insect that is to become its supper, the bird dives upon it vertically with startling celerity, and moves off with its prey in its talons.

The Sparrow Hawk is a skilful flier. Along with the hummingbirds, terns, Rough-legged Hawk and Belted Kingfisher, it shares the ability to gracefully hover for moments at a time in mid-air, especially when fixing an intended victim in its sights. There is little chance to mistake this slim daring flier for any other bird of similar size. The Sparrow Hawk is the only small "hawk" with reddish back and tail. The latter is tipped in white with a black or brown subterminal band. The jerking motion of this tail when the bird is at rest is another identifying clue. On the sides of the head are

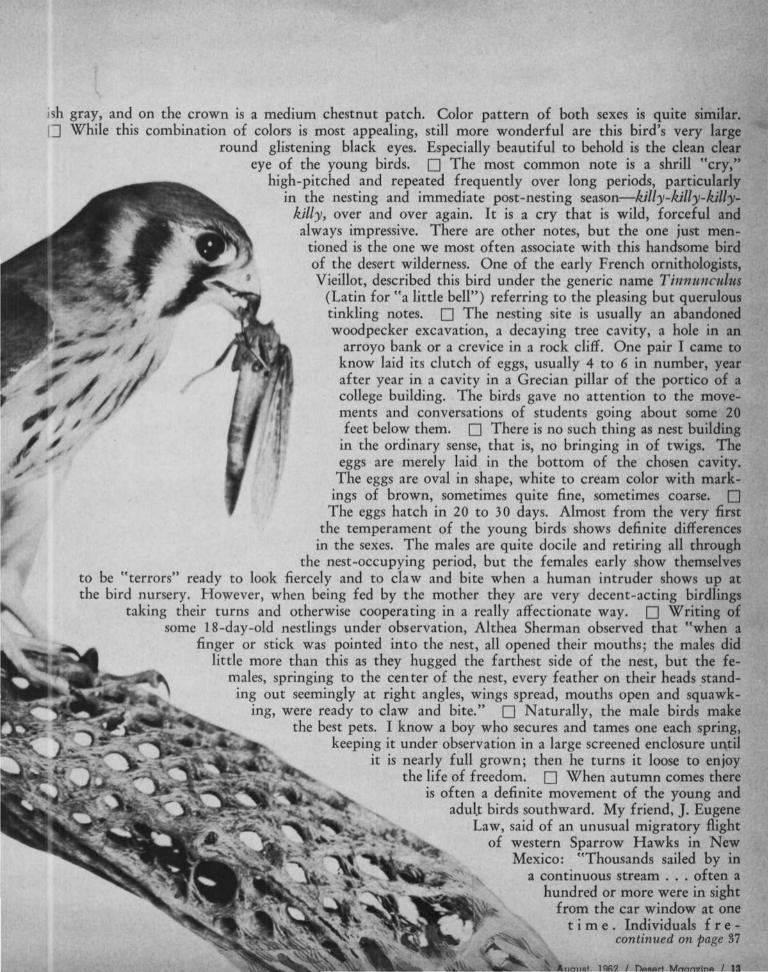
By EDMUND C. JAEGER

author of "Desert Wildflowers," "The California Deserts," "Our Desert Neighbors," "The North American Deserts"

two vertical stripes of black. The crown,

wing coverts and sec-

ond aries are a soft blu-



IS SMALL MINING DEAD?

THE MEETING room at the annual American Mining Congress was overcrowded. Standees lined the walls and filled the aisles. A crowd was gathered in the corridor outside the door.

One man came out, wormed his way through the crowd, and announced in a loud voice: "I don't see how you fellows can expect the government to do anything for you when you can't agree among yourselves as to what your industry needs."

"The 10,000 government bureaus concerned with mining can't agree either," replied a heckler.

Inside the hall, a high-powered government official was explaining the various proposals and bills before Congress designed to alleviate the plight of the small miner. And that plight is a real one.

Around the turn of the century—heyday for mining in the Desert Southwest—an estimated 2000 small mines were in operation. Today, I would guess the total has sunk to 100. The Arizona State Mine Inspector reported that in 1961 he visited 206 mines (of all kinds) in his state. Sixty-four of these, in operation the previous year, were shut-down in

1961. He classified 50 of the active mines as "small."

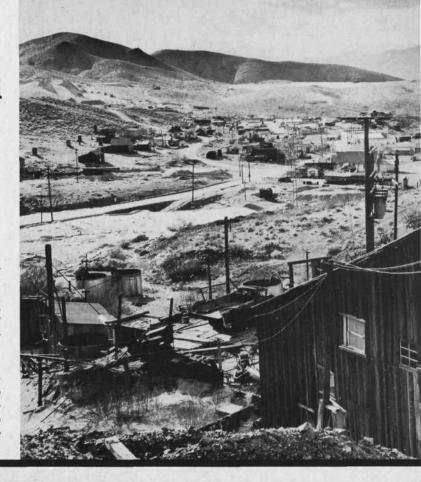
What killed the goose that used to lay golden and silver eggs in the Southwest? Small mining has become unprofitable largely because of the great advance in wages and some of the other operating costs. In the early part of the century, miners were paid \$3.50 to \$4.50 a day. Now the scale is \$25.

The large companies have been able to offset such increases with mechanization and improved techniques that can only be used on a big scale on big deposits. In the past,

Southern California's Last Operating Gold Mill Works the Tailings of a Turn-of-the-Century Bonanza Mine . . .

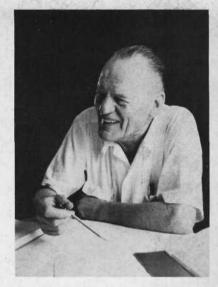
By Warren and Barbara Transue

- Bert Wegman runs the ten-stamp mill at Randsburg as a one-man operation. His mill was originally built in 1897 at the Butte Lode Mine. It burned in 1916. Rebuilt, it lay idle for many years until Wegman acquired it in 1950. He operates it as a small stock company, with a 10 percent cut of the millings going to the mine property owners.
- At the present time, the mill is processing ore reclaimed from the tailings of the famous Yellow Aster, in addition to other small workings in the vicinity. The Yellow Aster ore runs from \$15 to \$30 in gold to the ton—which makes for a profitable mining venture even in 1962.



By CHARLES H. DUNNING

The author began his career as a mining engineer in Arizona in 1909, following graduation from Yale University. For several years he operated mines in the Prescott area, and in 1921 helped found the Smoki clan which annually perpetuates Indian ceremonials. Dunning sank the first elevator shaft at Carlsbad Caverns in 1927. During ensuing years his mining activities took him to every part of Arizona. This experience brought his appointment, in 1944, as Director of the Arizona Department of Mineral Resources, a position he held for seven years. Dunning is the author of two books, Rock to Riches, and Arizona's Golden Road.



the production of one ton per employee per day was standard. Today, many large companies get more than 10 times that production. It would be difficult to use an open pit, or apply the caving system, on a two-foot vein.

Another reason for the decline in small mining is that most high-grade surface deposits have been found and worked out. Now it takes an enormous amount of capital to put a lower grade deposit into production. San Manuel, 30 miles north of Tucson, spent \$100,000,000 in exploration and development of its low

grade deposit before it produced a pound of copper.

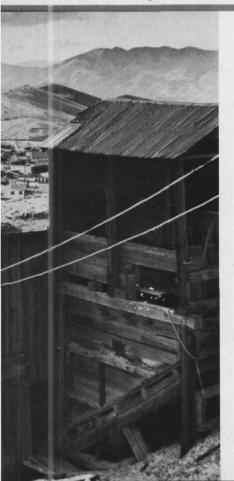
And who wants to see wages and working conditions reduced to those of the "good old days?" Or who wants a colossal subterranean upheaval to disgorge some new mineral deposits?

Let's return to the meeting. The government speaker was giving a list of all the proposals before Congress to aid the small miner. There were more than 50, which could be divided into six categories of proposed solutions:

1. Tariffs on foreign imports.

- 2. Quotas on imports, or other restrictions.
- Government purchase and stockpiling of a multitude of metals or minerals.
- 4. Direct subsidies to be paid by the government to the producer.
- 5. A free world market for gold.
- Government to pay more for newly mined, domestically pro-

continued [





• Bert Wegman (photo above) checks ore in one of the bins with a magnifying glass. The ore is graded into separate bins above the mill site, and each bin is numbered as to ore owner and mine name.

• Wegman's mill is shown in the foreground of the photo at the left.



Small Mining (continued)

duced gold to be set aside and used for currency backing only. (Similar to the old silver act which kept many a small mine alive when the world price was low. Now, however, this act has become obsolete because the great demand for silver in the arts has caused the world price to rise above the price the mint was paying domestic producers.)

Let's take them one at a time:

- 1. Tariffs on imports. We must accept the fact that our national economy depends in large measure in selling our labor-produced goods to foreign countries. We cannot do that very long unless we buy something from them that they produce. In many countries this is raw materials—metals or ores.
- 2. Quotas and restrictions on imports. This "solution" has been the most popular in Washington, and has been used to some extent for lead and zinc. It has probably kept a few of our lead-zinc mines alive, but in the long run it produces the same results as tariffs.
 - 3. Government purchase and stock-



FIFTY YEARS AGO WHEN THIS PICTURE OF A MINER WORKING HIS DRY WASHER WAS TAKEN, AN OUNCE OF GOLD WOULD KEEP A MAN WORKING FOR A WEEK.

piling. This was a splendid idea when first inaugurated. It has been a historical fact that whenever our nation, or any other, became involved in a war, essential metals could not be produced fast enough, and foreign sources were unreliable.

Stockpiles should be considered as insurance, not as a subsidy. They cost money, but so do insurance policies. They should not be thought of as a boon to the miner, though they help at times. Even if they stimulate production for a while, there is always a limit which, when

Randsburg Gold Mill (continued)





• When Wegman is ready to "run a load" through his mill, he fills an ore car from a bin chute. The car, which holds a ton of ore, is pushed down a track onto a scale, weighed and recorded, then dumped into the stamp mill (photo above) where it is pounded and ground into a fine dust.

reached, will cause a sharp curtailment in production.

Such a situation pertains at present. We are probably overstocked on several materials, and there is the ever present threat that the government will dump them on the open market—creating more havoc.

A peculiar situation developed with lungsten. A large amount of the world's tungsten is mined in Korea and China. During the Korean War, there was a great shortage here. Having no stockpile, our Government offered to buy tungsten at \$60 per unit (20 lbs.). Prospectors took to the hills and soon we had tungsten running out our ears. The war ended, and the hungry Koreans shipped more tungsten than the world needed. The world price dropped below \$25. In 1951 there were more than 50 mines producing tungsten in our Southwest. Today tungsten mining is the deadest of dead ducks.

4. Direct subsidies to the producer. This plan would enable users to buy metals at a low market price, but would have the government pay the miner a subsidy so he could make money. The idea of all the people paying to help a relatively small group is obnoxious.

5. A free world market for gold. This makes sense and should be done -but it would produce little benefit to the small miner at present. Our laws require that a domestic producer of gold sell it to the mint for approximately \$35 per ounce. The market is somewhat higher in various free markets throughout the world-varying from slightly higher in London to considerably higher in places like Bombay and Tangiers. (However these higher markets usually have some strings attached to them so that the net benefit to our gold producer would be nil.)

Because there is more demand for gold in the arts and industry (not counting that used for coinage and paper currency backing) throughout the world than is being produced, the law of supply and demand should eventually force up the price.

Another proposal often made, which many think is sure to come, is that our Government raise the price of gold—a highly inflationary move.

6. Price increase for domestic production only, to be held for currency backing. For every ounce of gold the mint buys from the domestic producer at \$35 per ounce, the government may issue \$140 in currency.

Once upon a time there was \$20 in gold behind every \$20 bill. For ages gold has been the only really acceptable medium of exchange throughout the world, and factually still is. The reason is not because of its glitter or glamor, but because of its usefulness; its enduring qualities; the fact that too much of it has never been found; and while scarce and expensive to mine, its occurrence is widespread throughout the world.

SUMMING UP. We need a live mining industry for our national economy and safety. Small mines are an essential part of that industry.

Many of the proposals before Congress are not practical, but there are two that should benefit the greatest number of people for the longest time:

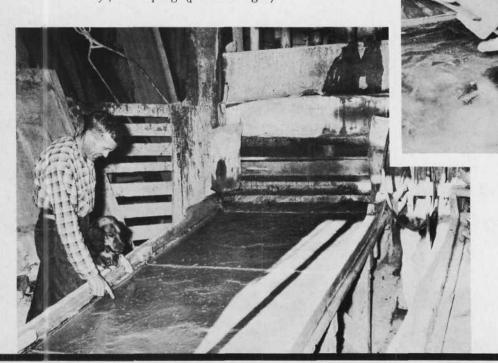
- (A) A unified mining authority in Washington.
- (B) Paying the domestic miner more for gold to be used only to make stronger currency backing.

Let's take a closer look:

(A) During World War II a miner had to deal with 63 different Government agencies, bureaus, or depart-

continued [>

• The powdered ore is splashed over plates covered with mercury-cyanide where 90 percent of the gold is caught. The ore then flows over large mercury-covered copper plates where more gold is caught as an amalgam. In photo below, Wegman checks the plates to see if amalgam is ready for scraping (photo at right).



• After all the free gold is amalgamated on the plates, the filtered water is sent to the cyanide plant. One final process awaits the gold which has eluded recovery.

continued

ments. Today, there may be a few less, but still he has no staunch friend among them.

Often these various agencies disagree sharply in their aims and policies, and the miner—especially the small one—is the whipping boy.

An example is the Carl Larsen situation. Larsen discovered and holds a uranium property north of Globe, Arizona. When the Government wanted uranium badly, some \$80,000 worth was mined and shipped from Larsen's mine. The Atomic Energy Commission examined the mine and carried on exploratory drilling, disclosing a large tonnage of low grade ore, on average too low grade to be shipped to distant mills or buying depots, but sufficient in grade to be highly profitable if Larsen had a large mill at the mine and could obtain the going price.

(A Canadian company, with even lower grade ore reported a net profit of \$3,145,112 for the quarter ending Sept. 30, 1961.)

Larsen could gut his mine and continue high-grade shipments, but prefers to vision it as a large low grade mine with really big future In order to finance a mill, Larsen needs a mineral patent on his land. The Atomic Energy Commission recommended it, but the Forest Service is fighting it under the theory that the future market for uranium is uncertain.

Proposal (B)—paying the domestic producer more for newly mined gold, to make better backing for our currency—would put men in the hills again; and result in the discovery of new mines, some of which will turn out to be big mines, important to our national self-sufficiency.

"Excuse me mister," some will shout. "You're talking only about gold—it ain't essential to our selfsufficiency."

Perhaps not in itself, but remember—in our Southwest most of our important metallic mineral deposits had an outcrop of gold sufficient to intrigue the prospector. Being intrigued, he dug. Usually he ran out of high grade gold, and ran into base metals of greater total value.

Witness the Iron King Mine in Yavapai County, Arizona. It was discovered and promoted as a gold mine around the turn of the century. As it was explored deeper, the gold content declined and "obnoxious" base metals increased. Today the Iron King is one of the biggest lead-zinc mines in the world.

There would be another very important result from increasing the mint buying price for domestically mined gold. Many of our big mines have a small gold content in their ore—perhaps \$1 a ton. If they could get \$2 for that gold, they could increase their now marginal ore reserves immensely; they would be in better shape to compete with cheap foreign labor, and more inclined to develop new deposits in the United States, rather than overseas.

Such a specialized raise would not be inflationary except to the extent of creating more employment, and putting a few more dollars in the hands of the miners.

"Subsidy! Subsidy!" many will cry—but if the mint pays the domestic miner \$70 instead of \$35 per ounce of gold, and still issues \$140 in currency against it—just who is subsidizing whom?

Randsburg Gold Mill (continued)



- Any remaining gold is dissolved in a cyanide solution. In photo at left, Wegman places shredded zinc in the cyanide vats. Zinc will precipitate the gold as a black sludge.
- Photo below shows two samples of refined gold. The large pile is dried precipitate from the fusing of the gold and zinc. The smaller pile is gold "sponge" smelted down from prior processing on quicksilver and mercury-cyanide plates.
- Crude gold bullion is sent to the U.S. Mint for final recovery and apportionment: the miner, mill operator and mine owner receive their shares of the proceeds directly from the Mint.





THIS IS TODAY-1962. Within walking distance of the waterhole, oil wells pump around the clock; and it is less than a day's drive to where factories build missles and rockets and space-age hardware. 1962 has not yet come to those Navajos who take their domestic water from waterholes, and haul it in horse-drawn wagons to mud-walled hogans. It makes a beautiful picture—provided the viewer's water is piped into his home, and the vehicle that brings him to Navajoland is a 300horsepower automobile. But the Navajos are not to be pitied. They who drink the brown water and ride the hard wagons find beauty in this scene, too. That is their wealth. Photo by Sam Rosenthal, Jr.



Jesuit Gold

was the treasure abandoned by the banished Jesuits in the New World in 1767, 9 metallic or human?

by Charles W. Folzer, S. I.
Alma College, Los Gatos, Calif.

T HAPPENED in Mexico. Under a warm March sun I wandered up a hill where a crumbling ruin met my gaze. Although I knew where I was and why I had come, a sense of discovery welled up in me as I stood beside the walls of Cocospera. I stepped inside.

Piles of mud brick, splintered mesquite logs, fallen plaster and dried weeds packed the old mission church more tightly than her congregation had on a cold winter morning. Her vaulted roof no longer protected the modern visitor from the howling wind; only the jagged edge of a brick arch pushed heavenward. The church floor was pock-marked with pits, dug well below the level on which her people once knelt. Even the niches in the sanctuary wall were rutted by picks and erosion. A few bits of plaster clung defiantly to a protected corner, and even they were etched with the meaningless initials of forgotten vagabonds.

I was stunned. Certainly it was a ruin, but why demolish it?

Why? As I walked away from Cocospera my heart harbored a sad suspicion—the persistent myth of the Jesuit treasure; was that the answer?

There are two kinds of lost treasure in our Southwest-the untapped natural resources famous in the legends of a mine like the Dutchman, and the missing cultural artifacts of past ages. When I was a young lad, I poured over my Desert Magazines with the enthusiasm of another Jim Hawkins on a treasure hunt. If it was lost, it was valuable; and I paid no heed to the difference between a lost mine or a lost mission. But growing older, I remember reading Desert's continual pleas to preserve the rare beauties of the desert's loveliness. I never joined these ideas of preservation and lost treasure until that warm March day on that forsaken hill in a forgotten valley.

No man on earth can blame another for searching out a hidden treasure whether God placed it beneath mountain boulders, or whether a threadbare Blackrobe buried a chalice in a canyon cave. But there seems to be a difference in how it is sought. Should no one ever stumble on the golden ledges of Pegleg's legend, what is harmed? There are only the hundreds of happy hours men have accumulated in the quest of the almost-real. Each of them finds something—a reward of desert lore: of rocks, palms, and desert majesty.

But, what happens when someone searches for a cultural artifact that rumor has lodged beneath a mission's floor? The frantic shoveling ruthlessly destroys the real treasure in its necessarily futile efforts.

What the missionaries left in their legacy to the Southwest were villages of civilized Indians where only savages had previously lived. They left temples dedicated to God in a wilderness that defied the possibility of their achievements. In fact, their real legacy is our Southwest.

Always the desert has had its unwritten laws—of travel, of conduct, of survival. The very isolation of the desert's vastness is one of its primary attractions, and that isolation imposes on the desert traveler a duty to preserve what the desert climate itself has preserved.

But this is really beyond my concern which was born by reflecting on the legend of the Jesuit treasure. My corncern is for the integrity of the vestiges of mission history. As the people of our expanding Southwest eye the enticements of Sonora and Baja California, they repeatedly hear of the fantastic wealth amassed by the Society of Jesus and "hidden from the Franciscans." Imagine the

reaction of the thousands who read in the San Diego Union for March 26, 1961:

The Jesuits were supposed to have built it (Mission Santa Isabel) while searching for a route between the West Coast and the Gulf coast of Baja . . . The legend was that they found gold. We do know that they had an enormous collection of pearls.

When the Jesuits were replaced by the Franciscan Order in the 1760s, the Franciscans were unable to find the mission or the treasure. The Jesuits had buried the treasure to keep it out of the hands of the new order, according to the legend.

We might call this the "Baja" legend because there are other variations for the Jesuit missions of Sonora, Sinaloa, and Chihuahua.

If we analyze the *Union* report, we find the perfect blend of Jesuit-myth ingredients:

- 1) a treasure of gold, (silver,) or pearls
- concealed from an "antagonist"
- and subsequently lost or abandoned.

Whatever story one hears, it reinterprets these general themes into local color "facts." The Baja versions popularly feature pearls and a lost mission somewhere on the rugged peninsula. Sonora series prefer silver and hidden caves. The antagonists vary according to time and place. If a local mission was abandoned long before the expulsion of the Society from the New World in 1767-and such is the case with many of the central Sierra visitas-the tale tells of treasure lost in an Indian raid -Apache, Seri, Tarahumare, Tepehuanes. If the mission was active in 1767, the antagonists are garbed in Franciscan gray; their legendary archenemies bury prized possessions as this gray wave ominously advances across Mexico. (I have been asked in utter sincerity if we Jesuits really do get along with the Franciscans as we appear to!) If the mission shows signs of past elegance, the treasure shifts to silver bars, candlesticks, chalices and ciboria set in pearls, and bells; such is the Tumacacori story.

Having listened to the *sincere* renditions of dozens of variations, my single impression is kaleidoscopic — that is, each offers a new arrangement of colorful bits of fragmented history. They may seem as real to us as the cities of Cibola to the Spanish conquistadores. They glitter like art of intricate design, but they are only repetitious reflections of a single and shattered series of near-truths.

A scholar once said that lost mines and mission-myths are the literary genre of the Southwest. Unwittingly the Spanish colonials picked up the Cibola fever from the Indians and passed it on in new garb. I for one enjoy the tales as a literary form because I believe they capture the haunting reality of an inexplicable country. But taken seriously they are as harmful to history as Jonah in the whale.

Can a more scientific answer be given to the perennial doubts raised by these persistent myths? I believe so. Let us proceed systematically through the general assumptions listed above.

Physically, Jesuits had access to gold, silver and pearls. Pfefferkorn in his Description of Sonora mentions five mines near his mission of Cucurpe. But in his treatment, as in similar works of other missionary padres, it is clear that all the mines were worked by Spanish colonists; many of these men "buried their wealth again" by digging too deeply into unprofitable veins-the age old saga of mining. Segesser mentions a 150-arroba (3500-pound) lump of silver discovered near Mission Guevavi; he adds that this meant nothing-"my treasure is souls." Jacob Baegert opines in his Observations in Lower California that very little gold was prevalent; the peninsula mines were silver-bearing and these were, at best, mediocre prospects.

Pearls have always been the storystopper. Everyone thinks of gold and silver — but who of pearls? From the earliest excursions to the Isla California the Spanish Crown was vitally interested in developing the pearl fields. Padre Kino's reports on the pearl fishing indicate early disappointment, but some optimism; Atondo was disgruntled at the expedition's paltry pearl profit. And gruff old Padre Baegert, 80 years wiser, put it well:

If a Spaniard after six or eight weeks of fear and hope, sweat and misery, has a net profit of one hundred American pesos, he thinks this is a rare fortune which does not come to all of them, or every year.

Note that Baegert mentions a Spaniard. All extant records of the Jesuits speak of mining and pearl-diving in the same impersonal way. There is more to this than style.

When the Jesuits moved into the mission frontier, it was not long before their superiors realized the "fabulous wealth of Nueva Viscaya" was going to be a source of trouble between colonization and Christianization. The Society strictly forbade her men to engage in mining or mining affiliated activities in any way. From archival sources we know of only two instances in which Padres became involved in mining operations (these being in the Sierra Madre mission area). In both cases the men were severely reprimanded and removed.

Curiously enough, many people are unaware that the missionaries were not alone on the frontier; that the terrain was dotted with reals, commonly centered on colonial mines. In repeated instances the Jesuits refused to perform any services for the Spanish colonials in strict obedience to the mining restrictions! This reluctance and later the "anti-slavery" cedula combined to create ill feelings between the missionaries and the colonists. As a matter of fact, this relationship is a principal source of anti-Jesuit legend, and these legends are the seeds of today's fables.

The pearl problem on the peninsula was similar. Spanish vice-regal authority was so intensely concerned over pearl "production," the missionaries went to extreme lengths to



COUNTERFEIT SILVER. These pieces of "Jesuit-five," reproduced in actual size, have appearances similar to others that have cropped-up literally from Maine to Mexico. They are unquestionably silver (40 to 60 per cent) just as they are unquestionably counterfeit. For a rather insignificant investment (cost of the low-grade silver) the person who casts such pieces can dump them on the "antiquities market" and clean-up a tidy sum. Purveyors of this bullion described the cross as the monetary seal of the Jesuits and the "M" above as Franciscan "ascendency to the realm." Ingots of nearly this precise shape have appeared with Kino's name engraved with the date of 1701. The "V" probably refers to the quintum or fifth-part of all ore operations owed as tax to the King. The Jesuits, in most of the lost treasure tales, are supposed to have concealed the King's share.



avoid conflict with the government. This concern over disinterested motivation was even noted by Alexander Forbes in his 1839 History of Upper and Lower California:

. . . soldiers, sailors, and others under their command, should be prohibited, not only from diving for pearls, but from trafficking in them. The law was the cause of great and frequent discontent, but it was nevertheless rigidly enforced by them during the whole period of their rule.

True, in the very early years pearls were used, even set in sacred vessels. But, they became of such a great price they almost cost the whole mission effort.

Preposterous rumors rumbled through Europe that the Jesuits were planning a coup d'etat, financed by the gold, silver, and pearls of New Spain! This continental fantasy spurred strict sanctions and urgent investigations. One of the strange incongruities of history is to read the reports in response to royal inquiry -a strident symphony of charge and refutation. Royally commissioned investigators arrived in the persons of perplexed religious visitors or military captains. They braved shipwreck, scurvey, and ambush to discover the ostensible Jesuit Empire comprised a few isolated missions of mud and stone, an army of unclad and ill-armed Indians, and herds of cactus-eating cattle.

Mission inventories and details of common practices reveal that little money was kept on hand. So common was credit-buying on the Sonora frontier that the 9% interest and the *quinto* levied on the rough silver cut the purchasing value of available

silver and gold. The Padres primarily did not have much money. Budgeted allotments coming from the royal fiscal were handled by the purchasing agent at Mexico City. What little cash surplus accumulated from the sale of cattle and grain, after the substantial expenses of clothing, equipment and other food stuffs were met, was used for new vestments and church ornaments. Many missions prized their paintings by European and Mexican masters. Gilded altars, packed in sections, were shipped from Mexico City or Guadalajara. Costly beeswax burned in solid silver candelabra. Indeed, the Padres could often claim quite justly that their frontier churches were equal to many a cathedral in Europe.

If any Jesuit treasure has survived, it is physically possible that it is a cache of vestments, sacred vessels, and church ornaments. (But we have yet to review this possibility in terms of its concealment and subsequent loss.)

Mission archives tell us nothing about any cache which was lost after protective burial or concealment during an imminent Indian raid. There are occasional references to this practice, but in each case the missionaries have returned to recover the sacred articles; or the hiding place was discovered by the marauders and the valuables stolen. In no instance were these ever left unrecovered in any church! And the practice of stealing negotiable metals didn't tempt the hungry, nomadic Indian until much later in frontier history when he found men who would accept the stolen valuables for food, guns, and ammunition. Frankly I have always chuckled to imagine the lean Apache hugging his pony through cactuschoked arroyos, candlestick in hand. Trinkets, yes; treasures, no.

Since the majority of the treasure legends hinge on the events of the Society's expulsion in 1767 rather than on Indian raids, the truth or falsity of "hiding the hoard from the Franciscans" depends on a knowledge of the circumstances. The expulsion is one of the most fascinating sagas of colonial history, but it is a story far too long for our purposes. A basic acquaintance, however, is essential.

On June 24, 1767, the highest authorities in New Spain witnessed the unsealing of the "top secret" orders from Carlos III. Under penalty of death, the orders demanded that within 24 hours each and every Jesuit was to be seized and sent to Vera Cruz, on to Spain, and banishment from the realm. No mean feat for the 18th Century!

In Mexico City that same night 3000 troops, foot and horse, moved out of scattered forts and surrounded religious houses. In five residences 178 Jesuits slept unaware of their iron-handed fate. At 4 a.m. the units swarmed through the houses to route the drowsy fathers and brothers to their chapels. Jose de Galvez, Visitador General, at the Colegio San Pedro y San Pablo tensed for the rebellion; his 300 soldiers stiffening expectantly as the decree was read to the 90 Jesuits. One fainted; one screamed; a few wept. And Galvez, instead of rebellion, watched the community file past to sign the decree and return to their rooms for their brevaries, one book, and their travel clothing-all that was allowed them for the trip to exile.

Detachments of troops impounded books, sealed records, and ringed the property with guards. And a note for the treasure seeker: the wealth of the house was confiscated for the royal treasury—80 pesos cash and an outstanding debt of 40,000. Net profit: \$_\$39,920!

The Colegio Espiritu Santo at Puebla was ransacked: floors torn up, walls smashed, toilets searched, and graves opened. Nothing. At the Casa Professa, 100 soldiers invaded the "elite" residence. The 30 Fathers knelt while the decree was pronounced and replied by chanting the Te Denm. The searchers, infuriated at the poverty, confiscated the chalices and ciboria. Morning dawned in silence. No churches tolled the angelus. The populace woke to cities swarming with infantry and cavalry. Men and women were roughly turned away from churches and religious services banned. One old man whose hearing was poor walked toward a church and was shot in his tracks. No one could speak to a Jesuit on penalty of death. And the protest of the people was silenced at the insistence of the Padres themselves; but when the moment came to transport the Blackrobes to Vera Cruz, only eight of Mexico City's 4000 carriages could be found and commandeered!

The same sealed decree with the threat of succeed or die had left the capital posthaste before the sudden suppression of June 25. District military captains lost little time in moving against the Jesuits of the frontier. Sudden and swift secrecy was imperative lest the Indians prevent the plan; as it was, political unrest over taxation had already posed some provinces on the brink of war.

The pattern for the frontier demanded that the Jesuits gather at a single mission station in each district. The pretext for the gathering was simply a written order from the religious superior and the voiced purpose of "a great work for the king." While Spanish authority feared the power of these men of God, they did rely on their unquestioning obedience. Unaware of the true purpose, mission superiors summoned their distant missioners to the rectorates. Each summons was delivered by small detachments of soldiers under the same death threat to clap the Padre in chains and return him under armed guard to the central mission.

Again, records were seized; property confiscated; searches perpetrated;

WHEN THE WALLS OF THE MISSION CHURCH AT TEHUECO, MEXICO, BEGAN CRUMBLING, THE PEOPLE REMOVED THE BELLS AND MOUNTED THEM IN FRONT OF THE SITE. STANDING NEXT TO BELLS IS HISTORIAN HERBERT E. BOLTON.

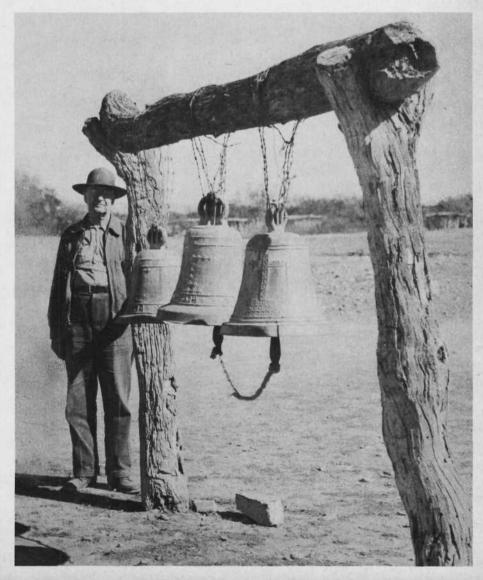
and inventories logged. Indians along the frontier teetered on rebellion, but the Padres counseled patience and obedience to the King! Even Galvez realized the tenuous position of the military and rushed troops into the central provinces, but he miscalculated the staying influence of the missionary priests. The speculation is probably true that without the Jesuits arguing and complying to their own expulsion, Spain would have been strangled in her tracks.

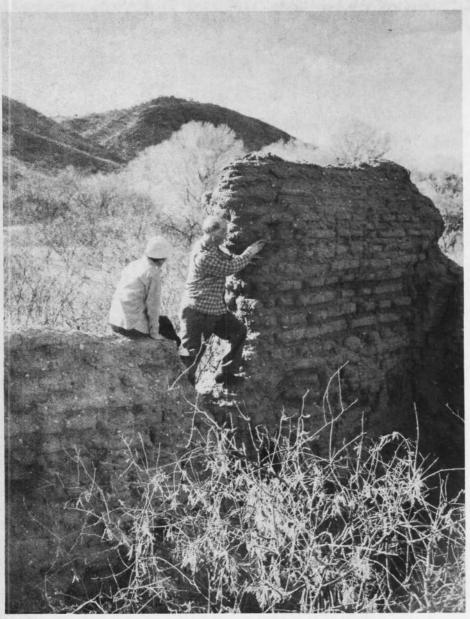
Distant Sonora and Sinaloa did not hear the decree until July 25 when the 52 Jesuits of the northwest met in the cordoned church of the Colegio San Jose de Matape. Loaded muskets poked through windows and stamping cavalry kicked up plaza dust while Carlos 111 expelled his civilization-makers from the foremost frontier.

Of all the Mexican Jesuits banished, these men of Sonora suffered most. They were marched to Guaymas in September; eight months were passed in near-shelterless imprisonment in the swampy delta of the Yaqui. They embarked in May, 1768, only to be blown across to California where Portola, after 15 days and the pleas of the Franciscans, permitted the boat-load of dying Jesuits to come ashore. Just short of recovery, they sailed for San Blas—driven by Portola's fear of Galvez' impending visit to Loreto. The march across Mexico mimicked the best Bataan tradition, with 20 dropping dead along the route to Guadalajara.

The Padres of the peninsula fared better. While detachments arrested mainland blackrobes, an embargo was clamped on communications with California. For six months no one sailed until Captain Gaspar de Portola landed at San Bernabe, November 30, 1767. His small force crossed the country to seize silver mines, vast agricultural stores, and well organized pueblos. Instead, they clopped across barren hills, passed leathery miners scratching out their lives in hot, dry canyons, and searched for water to quench their thirst.

Word crept up the peninsula in advance of Portola. Padre Ducrue,





THE RUINS OF MISSION GUEVAVI. IS THERE HIDDEN TREASURE IN THESE WALLS?

the mission rector, hurried to Loreto to meet the new governor of California. The familiar sequence was repeated; all the missionaries gathered at Loreto and awaited passage for San Blas. Not all was quiet, however; 2000 Indians rioted at San Francisco Borja when Padre Link was removed. But at San Ignatio the neophytes of Padre Retz fashioned a litter to convey him 100 miles to Loreto and exile. Disease, short supplies, universal poverty and the experience of the military captain of California finally convinced Portola that California was not a cornucopia. The peninsula was not a Jesuit heartland empire, but only a desolate mission dependent on Jesuit dedication.

Mission accounts and civil documents detail the same story: sudden seizure under armed guard, total secrecy, confiscation of monies, impounding of books and records, careful inventories, death marches, concentration camps, banishment. The decree, thorough execution, and deathly secrecy weave the refutation of the myth of Jesuit treasure.

What of the gray-robed side of this adventure — the Franciscans? What meager contact occurred in the exchange of the missions demonstrates only kindness and concern. Appeals for the acceptance of the Franciscans were made by the departing Jesuits to their Christian communities; urgent, inadequate attempts were made to impart the languages. As the Franciscans came into complete control, epidemics destroyed whole missions. Records, vestments and ornaments were transferred, many being shipped to Alta California. Fray

A Note on Santa Isabel

Erle Stanley Gardner records the recent discovery of the "lost mission of Santa Isabel" in his *Hovering Over Baja* (Morrow, 1961). Happily for the historian, he does not make a definitive claim that the buildings visited in his Hiller-copter were those of a Jesuit mission.

I personally do not know Mr. Gardner, and I have seen nothing more than he published for the public in his interesting book. When I plotted out his described course, the "mission" seemed to lie south and east of the known site of Santa Maria de Los Angeles. The site of the early attempt to found Santa Maria at Calamajue should be somewhere in this region (Santa Maria was 16 leagues northwest of Calamajue), but Gardner identifies another location with this placename.

Since historians have found no mention of this mission (Santa Isabel) in any of the manuscripts or "secret" archives—by plot, purpose, or position, or even by any other name that would smell as suspicious, I am curious if this structure might not be a later development at an old visita. The original objection to Santa Maria was its distance from San Francisco Borja, the supporting mission for the step into the frontier. Half-way points were searched out, but none were found in Jesuit times. Yet the urgent need of a mission at Guricata (Santa Maria) surmounted the objection to the distance and isolation.

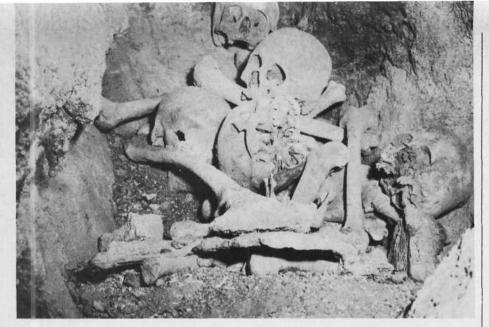
My larger problem with Gardner's findings is the photo of a section of the compound. Unless my myopia misleads me, the lines of this building are more common to later frontier dwellings, especially the sloped roof angled behind the tree. The proportions of the adobes themselves don't display mission characteristics. This evidently came to Gardner's attention since he mentions the apparent age of the foundation in contrast to the walls.

In all due regard for Gardner's rendition of the myth, the aspect of inaccessibility raises a problem. The entire history of the mission effort in California defines incontrovertibly that life on the peninsula without mainland support was impossible for any civilized community. Indeed, the whole mission program thrived precisely on accessibility, and to thrive in Baja California for the Padres meant simply to survive.

In view of the turbulent times on the peninsula in the 1800s a retreat such as Gardner dropped in on would have been a boon to the empire-makers. To a defeated revolutionary, survival in seclusion is better than civilized incarceration.

It is not impossible that this was an oasis built by Indian skills. Although Gardner pays the Society a compliment in the evidences of "high executive ability," he overlooks the fact that the northern missions were constructed under Indian supervision, an unsilent point of pride with the early Padres. Blind Andres Comanaji Sistiaga erected Santa Gertrudis, and Juan Neupomoceno, Santa Maria.

I'm as anxious as Mr. Gardner to know what he found; whatever it was, it wasn't "Santa Isabel."—C.W.P.



DO THESE BONES SYMBOLIZE THE REAL "TREASURE" OF THE PADRES?

Francisco Palou cautiously records these transferrals expressly to prevent charges of mismanagement or loss. Apparently the tide of disbelief on the mainland was beginning to flow against the sons of Francis.

Franciscan frontiersmanship differed from the Jesuit. Moving in pairs, the gray-robed missionaries centralized the Indian villages and spent great efforts on splendid churches. The distant twins of San Xavier del Bae and La Concepcion del Caborca, Tubutama, and Tumacacori stand their lonely vigils today in memorial to a greatness that might have been.

The plain truth is tragic. With the stroke of a pen, Spain wiped out 24 colleges, 11 seminaries, and dozens of Indian schools. The Franciscans courageously tried to fill the gap and repair the rift in Mexican society. But the same incredulous forces that stamped out the Society turned on the Seraphic Order. The new life born by Garces and Serra was snuffed out in the decrees of secularizationfreedom for the Indians to become slaves, and distribution of mission wealth into the land-hungry hands of a few favored individuals. These words may seem harsh, but the facts are more so. The proof lies across the face of northwestern Mexico and Baja California where progress flowered, faded, and crumbles into the dust of the desert.

But in the dust lingers legend, and in the legends, clouded history. Repeatedly Jesuit historians have been asked if there is any truth to the treasure tales. Fr. Peter M. Dunne, S.J., once confided that in his long years of manuscript research no single reference to concealed wealth or a "lost mission" ever turned up. Fr. Ernest Burrus, S.J., the Society's specialist on Spanish colonial history, shudders when he hears the mere mention of the myth. His daily fare is taken amid those "private, secret files" of the Society in Rome. Meticulously he has covered the inventories of the Mexican missions to familiarize himself with authentic Jesuitica. Never has he found any reference to treasure or lost missions. Poverty prevails over the peso.

No doubt precious relics of the mission era remain undiscovered or unrecognized today. But they will be found in forgotten mountain strongholds of Indians long since dead or still superstitious. More likely they will turn up in attics and basements all over the world. We cannot forget the waves of "explorers" who looted the lonely missions, or the "legal" plunder that came with secularization, or the devout protection given by the people against desecration. Some things have found their way back to the churches; some never will. But of the vanished wealth, at least we know nothing was buried or concealed in the missions themselves, and no trail-weary Jesuit ever "lost" his mission. Can you imagine a "Padre Peg-leg?"

Real mysteries remain. Where are Eusebio Kino's astrolabe and diary? Keller's notes, and Salvatierra's documents? These are real treasures that lie somewhere in dusty oblivion.

What of the myth of the Jesuit gold? I like to hear the skilful tales of mission days, of Indian raids and silver mines. I like the literary forms of the Southwest. But I want the man with the shovel to be an archeologist directed by truth and not myth. And the simple truth is: the Jesuit treasure is myth.

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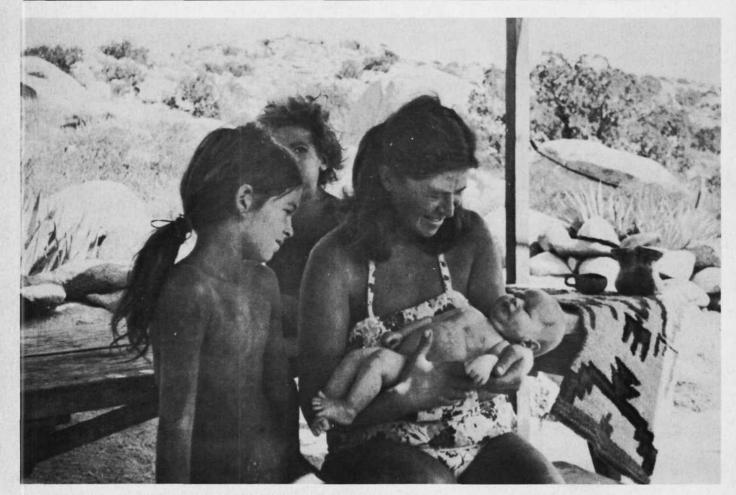
A SILVER ANNIVERSARY BONUS FEATURE

Reprinted from DESERT'S issue for February, 1940

MARSHAL SOUTH:

The Diary's First Page

□ When the Depression brought financial disaster to Marshal and Tanya South, they loaded their few belongings in an old car and turned their backs on civilization. □ The Souths followed a dim trail to the top of Ghost Mountain—"somewhere in the Anza-Borrego country" — and there in the wilderness they built their home, Yaquitepec, and raised three children "who have never known aught but the clear air and freedom of a secluded desert mountain retreat." □ South was a gifted writer. In a "diary" whose installments were published intermittently in DESERT over a period of nine years, he told of his family's life at Yaquitepec. Reprinted below is the first chapter of that record. □ South died in October, 1948; Tanya and her children moved to San Diego. □ Theirs was a bold, romantic and controversial experiment. Even today a month does not go by without DESERT receiving at least one letter inquiring as to the fate of Yaquitepec and its former occupants. □



VICTORIA, BORN IN OCEANSIDE, IS WELCOMED TO HER NEW HOME ATOP A WATERLESS DESERT MOUNTAIN BY HER BROTHERS, RIDER AND RUDYARD

THERE IS always something tremendously exciting about beginning a New Year. Especially in the desert. Here at Yaquitepec we don't make "resolutions"—out in the brooding silences of the wastelands one doesn't need to bolster confidence with such trivial props. But every time January first rolls around we greet it with joy. It is the beginning of a new page; a page of some fascinating, illumined parchment. An ancient page, but to us, still unread. What will it hold? The desert is full of mystery and surprise. No two years are ever the same.

And New Year's Day is always an event. Perhaps it is because it draws added luster from the recent memories of Christmas trees and the mysterious visit of Santa Claus. Yes, Santa comes to Yaquitepec. Silently, in the dead of night, his gold-belled reindeer speed between the swaying wands of the ocotillos and the tall, dry stalks of the mescals and whisk his gift-laden sleigh to the summit of Ghost Mountain. And always, when the old saint comes to stuff the stockings of the two little tousledheads who dream on expectantly, he finds a decked Christmas tree awaiting him. The Christmas trees of Yaquitepec are carefully cut branches of berryladen mountain juniper. They are never large-for we are jealously careful of our desert junipers. But what they lack in size they make up in beauty. The white clusters of berries glisten against the dark, bunched green of the tiny branches. And the silver star that does duty every year at the tree tip sparkles in rivalry with the shimmering, hung streamers of tinsel.

The little desert mice, which scamper trustfully and unmolested in the darkness of our enclosed porch, explore timidly the rustling crepe paper and greenery piled about the base of this strange, glittering spectacle. And I am sure that the old Saint, as he busies himself at his task of filling the two big stockings hung before the old adobe stove, must pause often to glance at the gay tree and to smile and chuckle. Yes, Christmas is a glad time at Yaquitepec.

And New Year is somehow a joyous finale of the glad season. A wind-up and a beginning. And it doesn't matter much whether the wind is yelling down from the glittering, white-capped summits of the Laguna range and chasing snowflakes like clouds of ghostly moths across the bleak granite rocks of our mountain crest or whether the desert sun spreads a summer-like sparkle over all the stretching leagues of wilderness. New Year's day is a happy day just the same. The youngsters, eager in the joy of a lot of new tools and possessions, are full of plans. Rider, desert-minded and ever concerned with the water question, is usually full of ideas concerning the digging of cisterns. Or perhaps with the manufacture of a whole lot of new adobe bricks. Rudyard, with all the imitative enthusiasm of two whole years, follows eagerly in big brother's lead. He is fond of tools, too. One of his cherished possessions is an old wooden mallet - "wooda hammah," which he wields lustily upon anything conveniently at hand. And prying into Rider's toolbox and helping himself to punches and hammers and saws and nails, is his favorite indoor

"Don't you get lonely, away up here on the moun-

tain?" visitors ask sympathetically at times. And they stare when we laugh at them. Lonely! How is it possible to be lonely in the desert? There are no two days the same. Always, on the mighty canvas of the sky and the stretching leagues of the wasteland, the Great Spirit is painting new pictures. And constantly, through the tiny thoroughfares and trails of our world of mescals and rocks our wild creatures hurry. The flowers have gone now and the chill of winter is in the air. But life goes on just the same.

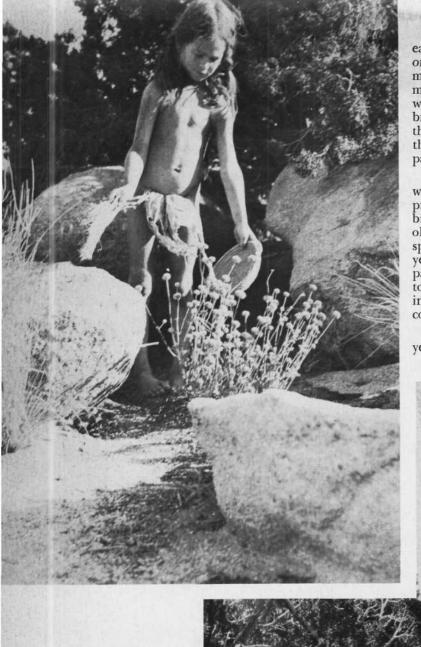
Coyotes range their beats with nightly regularity. We have been officially placed upon the coyote highway system and almost every night they come to sniff about our cisterns and to nose over the ash dump in search of possible eats. And sometimes grey foxes wander in on friendly calls. The snakes have holed up and the lizards are mostly all hid out. But owls come and sit on the corner of our ramada at night and regale us with woeful discourse. And the white-footed mice are always with us. There is something amiable and companionable about a white-footed mouse. Long experience with us has given them confidence. They slip in and out in the evenings like cheery little gray gnomes; squatting on the edge of the great adobe stove and nibbling tidbits, held daintily in their forepaws, while their big, beady, black eyes watch us attentively.

We have our birds too, though not the population of spring and summer. But quail whistle at times from the distance of the rocks and shrikes chatter advice from the summits of dead mescal stalks. The world moves on slowly but surely towards spring. The new grass is green in sheltered nooks and, already, some of the early fishhook cacti are putting out their flowers. The fishhooks are temperamental. If they feel like it they will flower, in defiance of seasons or regulations.

The house is bigger this year than it was last. Yaquitepec grows slowly. Almost everything in the desert grows slowly; and, like all the rest, our housegrowth is controlled chiefly by water. When there is water in plenty there is adobe mud for walls. And when the cisterns are low, building necessarily has to stop. But the heavy walls are slowly replacing all the temporary ones. And we have a new window on the desert this year through which the winter stars can shine by night and through which, each dawn, we can watch the winter sun come up, red and swollen like the gilded dome of some great mosque, across a dim horizon that is studded by the phantom shapes of the Arizona mountains.

We like to sit in our window seats at dawn and sunset. It is then that the desert is most beautiful. The old sea bed, where once rolled the headwaters of the Vermilion Sea, is still a ghostly memory of its former state. And a memory not too dim, either. At dawn all the hollows of the badlands swim with misty haze that startlingly suggests water. And when sunset flings the long blue shadow of Coyote peak far out across the dry reaches the effect is breathtaking. There they are again, all those ancient bays and winding gulfs and lagoons. And beyond them the purple gray of the great sea. It is not an illusion that is part of our own make-up.

Recently we had a visitor, a young scientist from the



east whose pet study is desert insects. He sat with us one evening and gazed out over the lowland desert, and marveled. "It's a real sea," he said in puzzled bewilderment. "Why, I can see the play of the wind on the water, and the streaks of tide-rips!" Truly mystery broods in the desert. It is not hard, gazing out across the phantom bottoms, to give credence to the story of the ancient Spanish galleon that legend has it lies rotting parched timbers somewhere amidst the sand dunes.

Desert mystery—and a new year in the dawning. "It will be a good year," Tanya says confidently, as she proudly takes a huge tray of golden-brown whole-wheat biscuits out of the great oven. "Rudyard is two years old now, and Rider is six. The garden is ready for spring and the cisterns are full. It will be a good, happy year for work and for writing." And she sets aside her pan of biscuits to cool while she snatches up a pencil to scribble the first verse of a new poem. Fleeting inspirations must be promptly captured—and she is a conscientious poet as well as a desert housewife.

But she is a good prophet also. Yes, it will be a good year.



"Daily Bread." Above:
Young Rider South
harvests the seeds of chia
in the manner of the
ancients. At right: Marshal
South works a crude
grinding device—two flat
rocks—which probably saw
similar service centuries
before.

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VICTORIA DESERT (continued from page 11)









forebears who had not mastered the desert but learned to live with it.

The first day's run was pleasant, driving through mallee and bluebush. Birds flew before the Land Rover in excitement at this invasion of their privacy. Ringneck parrots peered from nesting hollows. Galahs rose screeching from waterholes. Zebra finches drank daintily and flew off to the protection of prickly acacias. Near Naretha, a hardy Yugoslav community burns the limestone of the Nullarbor into quicklime for the mines of Kalgoorlie. The raw material of lime is plentiful enough, but trees are scarce.

The roadsides were gay with flowers. Bobtail skink lizards scuttled out of our way. Soon the trees disappeared except for small patches in "dongas," depressions in the lime-stone where enough soil had gathered to carry a pocket of shrubs, trees,

and rabbits. The most attractive of these trees was the desert Pittospor-

Mile after mile we drove through treeless plains until north of Loongana we turned towards the Great Victoria Desert. A grim sign warned that only well-fitted expeditions should go farther.

Camp for the night was made in bluebush country. A chestnut-tailed thornbill nesting nearby scolded us vigorously. Processionary caterpillars marched busily in search of a patch of soil in which to dig and pupate. We made our base camp at the Station. This old abandoned property was never stocked, except for a few camels. Rumor had it that the lure was a golden churinga hidden in the region. A churinga is a sacred object of the aborigines, usually of wood but often of stone. It would not be impossible for a gold nugget to have

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ABOVE: The sacred kangaroo at Boo-yoo-noo.

BELOW: Ben and Laurie with the sacred boards left when the People went away from Junegulla.

been found and worked into a churinga by these people of the desert.

At the Station we left our spare petrol and water. Geological treasure awaited us a few miles farther on. Here boulders tumbled down a hillside in a confusion of types. Dr. Main identified these as glacial till. Further discoveries during the journey extended our knowledge of the rocks of the area and, now, what was once a large white blank over hundreds of miles is known to be of Permian age. Already an oil exploration party has followed the trail we blazed, to examine rock outcrops.

On a claypan we found a dam of the aborigines. Wheat-belt farmers use the same technique to conserve water in dry areas. Nearby, deserted huts gay with Sturt pea showed this had been an important camping place.

By nightfall we made camp at Eel-



doon. The waterhole was marked with boulders to show that all could drink at the hole. In some places waterholes were sacred—women and uninitiated boys had to go thirsty. Two stones nearby showed the old men's place, taboo to others. Three hundred yards away a ceremonial wreath rested in a wattle tree, but the people who had marked the waterhole, obeyed the warning of the stones, and made the wreath, lived here no longer. Willy-wagtails and galahs drank the waters of Eeldoon.

We were now in the heart of the desert country. For hundreds of miles sandhills 30 feet high lined the desert. Marching in orderly rows, with their lengths running east and west, they barred our progress. Between the dunes porcupine grass and tall barra gums gave a parklike aspect.

To go north or south meant crossing the dunes. We charged them like knights of old, vehicles snorting and roaring defiance. When we bogged near the crest it was a case of backing down and making another run, all hands pushing and shoving to get the car over the crest. It was a time the passengers will not forget; at least the driver could hold the wheel.

Every day, radio calls went out to Cundeelee in case of trouble. Previous expeditions had run into difficulties Clutch, differential, tires — the desert sandhills strained them all. It was now a matter of hours per mile, not miles per hour.

Thirty-six sandhills after the first one, we straggled into Boorabbie. Here a sign told the story of previous Mission expeditions. Only a handful of white men had ever gone beyond this point. The waterhole was almost dry but many signs of the desert people could be found. An old grinding stone lay abandoned on the sand. Crested pigeons whistled through the air as they came to drink the scant water. Galahs flew screeching past, and zebra finches drank and moved on.

Beyond Boorabbie lay Boo-yoo-noo. Here to the famous ceremonial grounds came the People. Every four years they came for the increase rites, the man-making ceremonies — the ritual so necessary to strengthen the tribe. Now most of the people were at Cundeelee. Perhaps 30 or 40 still remain in the desert. Ben and Laurie had been making smoke signals in a vain attempt to make contact with their people. Boo-yoo-noo was the last hope.

At Junegulla the sacred boards were kept. In reverent silence Ben

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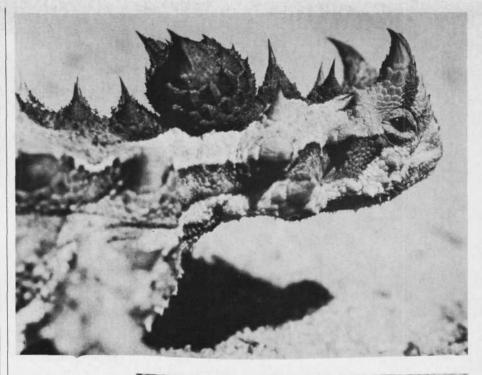
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ABOVE: Mountain Devil, a strange dragonlike lizard, which feeds only on ants.

RIGHT: Sturt Pea, named after one of Australia's great desert explorers.



and Laurie broke branches from mulga and laid them on the ground. On top of these they placed the boards. It was a dramatic moment. Then just as reverently the boards were placed back in the mulga tree, and the branches also, as they had become sacred through contact. It was a pause in our journey we will long remember.

Again we went through desert sandhills gay with flowers, and rested to watch a mountain devil feeding. Then on to Boo-yoo-noo we drove, to find the waterhole dry and the camp deserted. The stone arrangements glittered in the hot sun. The initiation pit was unused. In the mulga flat a sacred stone kangaroo emblem remained untouched.

There was sadness in the late afternoon as we returned to the truck. Here we were to leave Ben and Laurie. They were to stay in the desert to search for the People. Beyond this point our vehicles could not travel. On foot the two men would continue the search. If they had not returned in eight months' time, once more a Mission truck would come back to Boorabbie to get

More leisurely we retraced our outward track, collecting specimens. We found a rare scarlet-chested parrot. We sectioned desert pines, hoping, later, to learn the climatic history of the desert from an examination of

growth rings. Man-made records go back only 70 years; the pines may witness more than three centuries. Hopping mice, trapdoor spiders, geckoes, frogs, snakes, plants—all was treasure that fell to our eager hands.

Back at Cundeelee we decided to visit Queen Victoria Spring. Through a roadway flanked by giant grass trees standing like heraldic spearmen, we saw the spring with its slopes clothed in golden everlastings. Nearby was a monument to one of the earlier expeditions. A carved tree had decayed and so the inscription had been set in concrete in an attempt to save it. A gray teal fell to our guns and we cooked it native fashion wrapped in mud and baked in the coals.

Some years earlier at these springs I had seen tens of thousands of budgerygahs (zebra parakeets) coming to water. Farther south more than half a million birds screamed around the railway dam. It was an amazing sight as the birds drank rapidly and flew off. Then among the stragglers, like thunderbolts, the hawks would fall, plucking the green parrots from the ground in one swift swoop. I have seen no place where the struggle for survival was more merciless than at this waterhole.



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proved that this Great Victoria Desert is not the barrier to living things we had imagined it to be. Rather it is a corridor along which life can move from east to west—life which is, at least, adjusted to the desert environment.



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SPARROW HAWK . . .

continued from page 13 quently alighted on convenient trees and telegraph poles and all seemed on the lookout for food."

The smaller song birds are very wary of this audacious flyer; especially so are the sparrow which feed in flocks. Once the "hawk" has been seen about, they are likely to retreat into the brush and remain quietly hidden, sometimes for long periods, until they estimate he has departed. This same cautious action I have observed again and again.

Grasshoppers, seemingly the preferred food of the Sparrow Hawk and easiest to secure—are eaten head first. The wings and large jumping legs are usually discarded, then the thorax and abdomen are eaten in order. Crickets are similarly eaten.

This bird, so adept on the wing, does not hesitate to annoy or even attack other birds of prey much larger than itself. I have witnessed many aerial tussels between a Sparrow Hawk and a Red-tailed Hawk. The smaller bird seemed always to try to keep above the latter where it could dash down upon it. The Red-tail, upon being approached, usually turned over on its back and tried to

strike back with its talons. The battle usually ended when the Red-tail retreated.

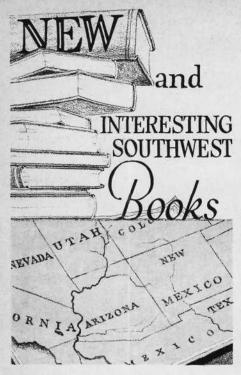
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The ever-popular LOWER CALI-FORNIA GUIDEBOOK by Peter Gerhard and Howard Gulick is once again back in print. This book, which is by far the most comprehensive guide to Baja California, is an invaluable aid to anyone who wants to wander far below the border in Lower California. The third edition has been revised, up-dated, and enlarged. It even contains a few photo-

THE DESERT OCEAN

No moon pulls this tide at her beck and call

Drawing the drifts to a rise and fall,

No cold white goddess in the sky Command these waves that shift and sigh,

But a girlish wind with a slender hand

Crinkles and ripples the waves of sand,

Rolls up the billows and blows a gale

As gallant as any that tossed a

Far from the water, far from the sea

Is a vast white ocean of mystery Where a cactus spike, like a vessel's spar,

Rides out the gales on a sandy bar

And the God of all a watch does keep

Over the desert ocean deep.

-Violette Newton

graphs of the peninsula's countryside. The guide gives a detailed description of road conditions, intersections, and mileage between cross-roads, towns, beaches, etc. Those who traveled the peninsula before the days of Gerhard and Gulick know how important a good guidebook can be in a land where roads, miles, and time mean about as little as anywhere on earth. The Guidebook has a three-color folding map, 16 detailed route maps and four city maps.

A new guide covering Mexico and Guatemala is MEXICO AND GUA-TEMALA BY CAR, prepared by Norman D. Ford. He's Harian Publication's expert on inexpensive travel. This guide to Mexico lists stopping places and accommodations along the four highways from our border to Mexico City. Then a chapter on hotels, restaurants, and shops in Mexico City, and next a chapter on "Seeing Mexico" (one-day to 14-day trips outlined), and finally the guided tour to Guatemala and a description of the places of interest there. Ford rates the hotels and eating establishments by the "four-star" method. One star means "good medium class . . ." with two stars for "superior medium class . . ." (whatever that means). Three stars is for "good first class' . . ." and four stars is for the "very best, usually in the de-luxe class." This paperbound This paperbound -deserving at least a three-star rating itself-discusses travel documents, how to get free information about Mexico and Guatemala, pesos and quetzales, insurance, what kind of gasoline to beware of, and how to keep healthy. It's a good book to have with you if you plan to head for Mexico, and even if you don't, it's fun to read all about it.

Another new book on Lower California, though dealing with a very different subject, is *THE DESERT REVOLUTION*, *BAJA CALIFORNIA* 1911, by Lowell L. Blaisdell. This hardcover study of a brief but exciting period in Lower California's history, is extremely well detailed and documented. The author is carefully impartial in his report on a revolution that wasn't really a revolution at all. Despite the sometimes almost comic characteristics of the

1911 uprising across the border from San Diego, Blaisdell puts each episode in proper perspective to the overall liberalism within the movement. Through the book runs the lost cause of Flores Magon, Mexico's principled and gentle anarchist. He was followed-loosely-by "General" Rhys Pryce, a British adventurer, and Dick Ferris, American actor, clown, and promoter. Others, Mexican peons, German soldiers - of - fortune, American cowboys, joined the rag-tag border bunch. There was very little fighting, no great victories or devastating defeats. It's history but not dry history, and will be especially enjoyed by those who have "discovered" Baja California in recent years.

-Charles E. Shelton

THE NEW BOOKS . . .

LOWER CALIFORNIA GUIDEBOOK, by Gerhard and Gulick. 243 pages. Maps, illustrations; hardcover. \$6.50.

MEXICO AND GUATEMALA BY CAR, by Norman D. Ford. 159 pages. Papercover. \$1.50.

THE DESERT REVOLUTION, by Lowell L. Blaisdell. 268 pages. Hard-cover. \$6.

ALSO CURRENT . . .

RIVERMAN-DESERTMAN, by Camiel Dekens, Life in the Palo Verde Valley of California, 1907 to the present. 111 pages. Papercover. \$1.50.

WAGONS, MULES AND MEN, by Nick Eggenhofer. Early freighting and wagon history—"How the Frontier Moved West." Excellent drawings. 184 pages. Hardcover. \$8.50.

1862 DIRECTORY OF NEVADA TERRITORY. A "Who's Who" of the frontier El Dorado. Limited edition, 290 pages. Hardcover. \$10.

BAHIA, ENSENADA AND ITS BAY, by Thaddeus Brenton. A love affair with a sleepy Mexican coastal village. 150 pages. Hardcover. \$5.50.

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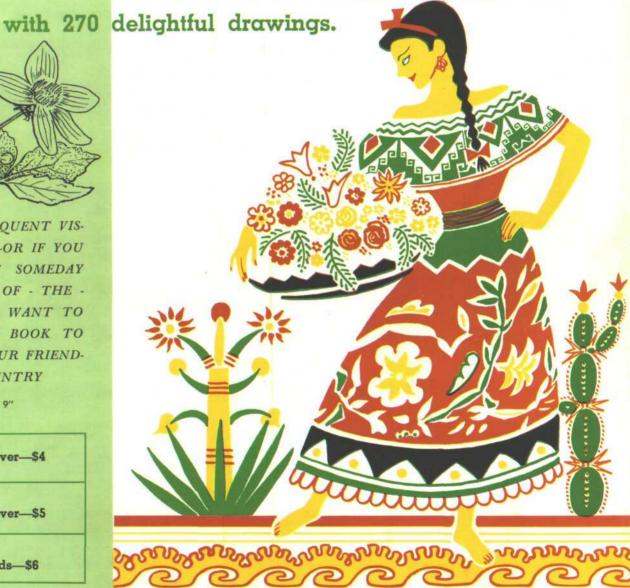
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